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ABSTRACT

This study describes the challenges and successes of student teachers (N=111) in a high school setting as they shift from the role of narcissistic student to that of other-centered teacher. The study attempts to capture their inner feelings as they begin the process of learning to teach. Throughout a 12-week assignment, the student teachers were asked to keep journal-like logs of learning-to-teach experiences. Seminars were held on a bi-weekly basis with student teachers working in groups reviewing, analyzing, and discussing each other's progress and setbacks. Toward the end of the experience, participants were asked to reflect back on the entire experience and identify their most and least successful lessons, describing each in detail. Utilizing student teachers' voices, successful and unsuccessful lessons are examined and discussed. Results suggest the emergence of three broad themes: (1) learning to teach is a very personal endeavor; (2) one's teaching self needs to be discovered; and (3) the classroom is a complex environment. Results imply that teacher education programs might be built around the natural concerns and feelings preservice teachers bring to teacher education. (LL)

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The Best and Worst of High School Student Teaching

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Introduction

Only within the last decade has there been a conscientious interest on the part of education researchers to understand how students become teachers. While the calls for studying teacher education can be traced back almost fifty years (Troyer & Pace, 1944), it is only recently that agendas for conducting research on teacher education have influenced our thinking (Hall, 1979; Feiman-Nemser & Buchmann, 1989; Houston, 1990). What has become clear over the last decade is how little we have uncovered in the preparation of teachers (Houston, 1990). The purpose of this study is to describe and bring life to the challenges and successes student teachers in the high school setting experience as they begin learning to teach.

A review of the literature by Guyton and McIntyre (1990) indicates that much of the research on student teaching has focused on the structures of student teaching, such as number of weeks, types of activities, and sites of experiences. Guyton and McIntyre call for research on student teaching which is of an analytic rather than procedural nature. Consistent with the critique of McIntyre and Guyton, researchers have begun discovering other aspects of research on student teaching to include research on student teachers. The purposes of student teaching have gone unchallenged for many years. As the Guyton and McIntyre analysis suggests, teacher educators have organized and managed student teaching on a philosophy of well-intentioned

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traditionalism and practicality. Specifically, before one can teach, one must experience an apprenticeship under a practicing professional to learn the art, science, and craft of teaching.

However, the influence of naturalistic inquiry which has been sweeping the education research community for the last decade, implores teacher education researchers to shift away from studying the structures of teacher education, and to begin studying the processes (Clark & Peterson, 1986; Shavelson & Stern, 1981). This study continues in a small but growing line of inquiry examining, from the students' perspective, how they learn to teach. In this particular study, the focus is on student teachers' attributions for successful and unsuccessful lessons.

Previous research in this particular area is admittedly small. Perhaps the most widely known study was conducted by Borko, Lalik, and Tomchin (1987). The focus of their study was very similar to the present study. In their study, the researchers reviewed the journals of 26 elementary student teachers to ascertain their conceptions of successful and unsuccessful lessons. In addition, in their analysis of the data they divided the student teachers in two groups: stronger and weaker student teachers. They found that in the area of successful lessons, both groups have similar descriptions of successful lessons. For example, in each group classroom management concerns were not a significant feature of successful lessons. However, the analysis of the journal entries for unsuccessful lessons indicated a difference in the student teachers' attributions. Stronger student teachers did not perceive classroom management as a feature of unsuccessful lessons, whereas the weaker student teachers did.

In a more recent study, Ellwein, Graue, & Comfort (1990) interviewed 47 elementary and secondary student teachers concerning what they considered the characteristics of success and failure in the classroom. They found that the student teachers mentioned seven elements of the lessons which they felt affected the lessons. They included student characteristics, implementation, planning, lesson uniqueness, management, student teacher characteristics, lesson

content. For the sub-group of secondary student teachers, the element most often mentioned in conjunction with successful lessons was student interest and participation. The most mentioned element of unsuccessful lessons were lack of student interest and participation, and lesson implementation, followed by planning and management.

They also found that their student teachers "tended to emphasize either their own actions and perspective or that of their students" (p. 6). They analyzed all lessons by these responses and generated three categories of reflections: self-referencing, ego-enhancing, and self-effacing. In the self-referencing category they placed those analyses where the student teachers emphasized their role in the lesson, and relegating concern about their students to a secondary focus. Ego-enhancing statements were those where the students emphasized their role in successful lessons while giving primary attention to their pupils' role in unsuccessful lessons. Self-effacing statements included the student teachers' own role unsuccessful lessons, and the students role in successful lessons. Approximately, two-thirds of all student teachers' reflections were characterized as self-referencing. The focus on self appears quite prominent in the thoughts of student teachers in learning to teach.

Method

The subjects for this study are 111 high school student teachers (grades 9-12) in a southeastern, primarily rural state that has a relatively low education profile. Throughout their twelve week student teaching assignment the student teachers' were asked to keep journal-like logs of their experiences in learning to teach. At bi-weekly seminars where the student teachers worked in groups reviewing, analyzing, and discussing each other's growing pains. Toward the end of the student teaching experience, the informants were asked to reflect back on the entire experience, and identify their most successful lesson and their least successful lesson, and describe each in detail. The data for this study are drawn from these particular entries.

As a group, the student teachers are traditional undergraduate students. A small subset (15%) are students seeking post-baccalaureate teacher certification. There were 63 females in the group representing 57%.

The data were analyzed independently by the researchers. Categories of attribution were created by the researchers that would communicate the intent of the student teachers. A cross-check of the categorizations indicated a 82% agreement in our assignment of attributions to a category.

Results

The data from this study do not contradict the data found in previous research. That is, as Borko et al. (1987) and Ellwein et al. (1990) found, student teachers attributions for successful and unsuccessful lessons cover a wide range of areas, from the student teacher, to the lesson, to the pupils. Our intent is to portray the attributions of the students in a way that communicates the passion, the timidity, the fear, and the confidence that student teachers seem to experience as they are learning to teach. We will use the student teachers' own words to describe some of the ways they perceive and believe lessons in high school classes "fall apart." There are many individual attributions for successful and unsuccessful lessons. As Borko et al. (1987) and Ellwein, et al. (1990) found student teachers' focus on the students, the lesson, and themselves to varying degrees. In this study, we also found an interaction of attributions which can change the lesson from a hopeful success to an uncontrollable failure. Our data suggest that our student teachers did not anticipate many of the failures, and they were usually hopeful that all lessons would be successful.

Successful Lessons

This section describes lessons that student teachers perceived as being successful. As with unsuccessful lessons, many reasons were given to explain the outcome of the lessons, and

the memories of the successful lessons were quite vivid ("My most successful lesson occurred on Monday April 23, in my second period government class.").

Understandably, most of the successful lessons occurred late in the semester. Even though individual students attributed success to multiple reasons, it became evident to us after analyzing the data that there were two common themes underlying the successful lessons: good instructional planning and good teacher attitude.

Good Planning

Although student teachers frequently attributed their successes to good planning it often appeared that the students were surprised with the results. As Greta writes, "I had worked hard preparing ways of presenting the material. It wasn't easy. It takes time in developing good lessons, but the rewards are worth the extra effort."

Additionally, the data indicate that good planning was used as a vehicle, allowing students to spend more time on instructional management. In reflecting upon a badminton lesson, Mick says, "I circulated (among the students) and gave feedback, probably the best I have in my short career. Obviously the feelings I was experiencing (success) were totally different from a few days before (unsuccessful lesson). And it was all due to proper planning. I planned the lesson to last longer than it supposed to (sic) to be sure I did not run out of material. I was more enthusiastic and provided a lot more feedback than I had in any previous lesson. Circulation was made easier because I knew what I was doing and what I was going to do next. It is amazing how one lesson can make or break your day." Jim echoes this opinion when he says, "I believe this lesson was successful for several reasons. The first is that I was incredibly prepared. If there is one thing I have learned in my student teaching is that there is no substitute for being prepared. I knew my objectives and knew what I needed to accomplish."

Instructional Management

As mentioned earlier, good instructional planning was frequently cited as a factor contributing to smooth instructional management. Instructional management included having a variety of activities and student involvement within a lesson, providing quality questions and responses to students, providing relevance to ensure student involvement, and providing concrete examples and visual aids to the students.

As a group, many of these students who were learning to teach began to personalize effective teaching behaviors. They were beginning to notice the effect activities, pace, and relevance have upon high schoolers. ("The lesson on this particular day was effective because I included many different activities. I kept the pace moving fast and the students were interested in the topic.")

Variety and Student Involvement

In contrast to occasions when lack of activity and "just sitting there bored" caused a lesson to be unsuccessful, variety and student involvement were often cited as reasons contributing to a successful lesson. Remembering a lesson on geometric constructions, Van says, "The reason this lesson was successful was because I had made careful plans and took extra care to involve the students." Betty appears to have the same opinion when she says the following about her world history class, "I learned that the students participate if given a choice, if monitored well, and if they understand what is expected of them." Paul says, "The students' response was great. They was (sic) involved with the game (volleyball) and also with learning about the game. The reason for the success was due to the activity. I kept people moving and involved. This minimized discipline problems and maximized effort, involvement, and learning."

Quality Questions and Responses to Students

Data indicate that with the passage of time student teachers were learning the value of good questioning technique and appropriate responses to students. During a lesson on harvesting tobacco, Marc says that "I used praise frequently and also amplified various topics. This caused a more smoother (sic) lesson. I held all the students' attention and they were asking questions. I could see the students learning and this was a great feeling." Jonathan says this of a Typing I class, "One of my greatest strengths is my questioning technique. I boxed off the symbols and called on students to identify them by row, column, diagonal, and every other way possible. The drill ran super smoothly, and I was so excited to get the responses eagerly. I attribute the smoothness mainly to the efficient and orderly flow of the lesson and the pace (not allowing for extra talking) developed and held for the hour."

In summing up the idea that good planning allows for good instructional management, Rod says the following about an Algebra II class, "I asked them (students) good planned questions and they responded well. A lot of student-teacher interaction was going on. I had nice well-planned examples and presented the material in a flowing manner. The students picked up on this and were no longer were testing my ability but had excepted (sic) the transition of the teachers. They knew I knew what I was doing. I felt very comfortable and confident in front of them and they felt comfortable with me....I knew after that day, if I can reach at least one student, then all of this planning and work on my part is worth it." Rod alludes to the feeling of confidence that may be a by-product of good planning and instructional management. This will be discussed more in a later section.

Relevance as an Explanation for Student Involvement

As Lisa says, "Students must have regard for you as a teacher, regard for the material, regard for your method of presentation. The last two are what I want to focus on, because

they were the most eye-opening to me. Students must have regard for the material in the sense that they must perceive its value or importance." This and other data indicate that with the realization that relevance invites student interest and involvement, student teachers begin to incorporate more and more "real life" into their lessons. An example is Nan. She says, "I attribute their success in the activity to a good beginning - always the hardest part of writing. I feel the reason they got off to a good start was because the activity was real to them; it was related to their everyday lives and concerns... Whenever I have difficulty planning lessons or getting student involvement I think of this. No matter what the activity I now try and connect it in some way with their lives." Lea also attributes her success to relevance. "I think this (lesson) was so successful because the kids could do their own creating. They weren't listening to teacher talk - they were actively involved. Commercials are something they are all aware of. It is real life stuff. This hands on activity (creating a commercial) was by far the most successful technique."

Concrete Examples and Visual Aids

Data from unsuccessful lessons seems to indicate a lack of understanding about why high schoolers may fail to understand a particular concept. With the realization that a visual image, a concrete example, is a powerful learning aid, it appears that student teachers begin to incorporate concrete examples and visual aids into their lessons.

Sandra relates the following about a geometry lesson. "I began the period by handing out string, scissors, and a worksheet. This was something different than the usual "go over homework/lesson" scheme. Eyes began to open...Signs of life - you know?...The abstract became concrete. I don't think they will forget the definition of a radian. The class was more active and interactive. It was more fun for the students - and the teacher!"

Remembering a lesson on pesticides in his safety and first aid unit, Dave tells that "This lesson was successful because I knew my subject matter. I brought in visual aids to show the students, what to wear and how. Some had never saw (sic) the equipment before. Then I asked challenging questions. To really generate their thinking ability. Using all of this together I had a great lesson."

Using what he knew about learning modalities as well as students' interests, Jeff prepared a lesson on tobacco grading for his agriculture class. "I feel the reason this lesson was so successful is because it appealed to so many of the senses. I had used visual-aids (before) but none had worked as well as this one. This dark tobacco was something they could see, touch, smell, and some even tasted it. I put forth an extra effort to get the sample and it was something they were anxious about so everyone had become interested enough in tobacco to want to learn more."

Good Teacher Attitude

Previous information in this paper alludes to the idea that "attitude" is important in the delivery of a successful lesson. In fact, after analyzing the data we found evidence that teacher attitude can indeed make or break a lesson. Further, good planning is often given as an underlying explanation for good attitude ("Because I love Dickinson, it was very easy for me to over-prepare for this particular lesson."). Further discussion about attitude is broken into three sub-sections: self-confidence, comfort with subject matter, and enthusiasm.

Self-Confidence

Data indicates that the growing sense of self-confidence translates into a good attitude on the part of the student teacher and thus contributes to successful lessons. It also became evident to us that student teachers felt confidence builds over time.

Rob perceived that with experience he began to more carefully consider his objectives, and with this sense of "mission" he gained confidence. He says, "I felt like I had finally hit pay dirt! I discovered then that the failures I'd had before were because I really didn't know exactly what I wanted and that left a lot of room for negotiation."

Relating self-confidence to preparedness, Stephen relays the following information. "Because I was prepared, I came across as efficient, calm, and in control. Students, as a result, followed the lead and accepted my authority."

Margaret made a connection between self-confidence and respect from her students. She says, "The lesson went well. I believe my self-confidence, and the students being used to me teaching helped a great deal. They know my authority and respect me. I really enjoy teaching this day! The experience made my life and abilities worthwhile..My self confidence has "boosted." This is in contrast to her earlier unsuccessful lesson when she felt "unprepared and inadequate," and "almost in a panic stage."

Confident with Subject Matter

We found that students frequently perceived that their confidence with the subject matter allowed them to be enthused and this translated into successful lessons. Enthusiasm itself is linked with success because of the effect upon students.

Colin perceived that since he knew the subject matter he was able to enjoy himself. However, he also relates this successful lesson to good planning. He says, "Perhaps this lesson was successful because I enjoyed myself and I was prepared to conduct the lesson. I made up all the bags (for a science lab) previously and I knew what I was going to say and most importantly I felt good about it and really wanted to conduct this lesson."

Upon reflection, Linda writes that "If I was to pick out the major factor (for the lesson's success) it would have to be confidence in the subject matter because if a teacher has that the lesson will be successful no matter what...I was confident and it showed."

Joy writes, "I think this has been the case with me while student teaching, the students make the lesson by the way they are participating with you as the teacher. The more comfortable I am with a lesson the more successful it is for me and for the students. To me this was the most successful (lesson) because I didn't have that feeling of not knowing the material. I felt that I was the teacher and I was actually teaching it to them rather than (it being) a learning situation (for me)."

John writes, "I am comfortable with the material. I have a lot of knowledge on the subject and I love it! I was enthusiastic and inspiring. I really wanted the students to learn about the subject. I walked away knowing I had done a good job. I was well prepared and confidence (sic). I believe these two factors showed through to my students.

As previous research, Ellwein et al. (1990) suggests, student teachers experience success in different ways. During data analysis we found two broad themes emerging from the students' journals: success being attributed to good instructional planning and success being attributed to good teacher attitude. However, after analyzing the data it was also clear that the student teachers did not view success as unidimensional, but rather as a combination of factors. This belief is illustrated by Linda who writes, "One reason I feel this lesson was successful was because I felt very comfortable with what I was teaching. I also knew my subject matter well. I was very prepared. I also related the subject matter to the students' every day life by using a poster. Also, the lesson was more successful because I was confident and it showed. There was more student participation and they enjoyed it and that helps. Once they caught on, I got more excited about it and the students knew it, so they began to enjoy the lesson more. As the

students became more confident so did I. If I was to pick out the major factor, though, it would have to be confidence in the subject matter because if a teacher has that the lesson will be successful...."

Unsuccessful Lessons

If we were to enter the student teachers' entries of unsuccessful lessons into a word-count program quite possibly the most oft-used words would be "frustration" and "respect," suggesting to us that student teachers experience feelings they had not expected. As we will try to demonstrate, student teachers are expected to develop a new identity which requires them to wrestle with unexpected feelings at the same time they are learning to teach.

Frustration

It became evident to us after analyzing the entries that frustration was an emotion that could be triggered by a wide variety of occurrences including the pupils and the student teachers'. For example, student teacher frustration could be the result of pupil misunderstanding as a result of inadequate content development. As John wrote of a geometry lesson on distance and midpoint formulas,

> From there, I moved on to how to find distance in two-space. Here is where I made my mistake. I did not offer any visual aid to show what I had done nor did I offer any proof--I just gave them the formula. What a mistake!! The students didn't have any idea what was going on; they were completely lost. The farther I went, the worse I felt. I knew they were not getting the concept, but I just pushed on through the material. I was frustrated, upset, angry, and a host of other emotions.

Frustration can also result from a student teacher trying to create an instructional environment that her cooperating teacher never uses. In this case, the environment is something as "innovative" as a discussion in an Advanced Placement English class. As Sarah entered,

> So I ask a few questions to get them to start and to make sure they did read (Icarus). As I try to move from lower to higher level questions, hoping to get them to give more than a two word answer, I start to get frustrated...Finally, at my wit's end, I assign a short paper.

Betsy, echoed similar concerns with instructional process. She was teaching a unit on the rules of grammar using a typical grammar text. The instructional format violated her own personal philosophy of instruction in English, but it was consistent with her cooperating teacher's values. Betsy's frustration arose when she had difficulty explaining an intricate rule guiding the punctuation of quotes within quotes. She wrote,

> During this specific lesson (and also the entire catastrophic unit), I felt guilt, frustration, embarrassment (when I thought I should have known the answer but didn't), and disappointment.

Susan, a non-traditional student, explains her frustration when "the girl I have had the most problems with" challenged her authority on the first day she took over the class. "I wanted to cry--my thoughts--I gave up 15 years of work and $20,000 a year for this." Charles, describing a history lesson, attributes his frustration to a poor choice of content.

> First, with all of the other interesting things happening in the 1950s, such as the Korean War and the beginning of the civil rights movement, the economic issues are not as interesting. Since they were not interesting to me, I'm sure I wasn't as enthusiastic as I should have been.

After the students sat passively through his 20 minute lecture, he notes, "this unsuccessful lesson gave me feelings of frustration and rejection, as my questions continued to go unanswered. It is very frustrating knowing you are basically being ignored."

Other examples of frustration are throughout the student teachers' entries. What is clear to us is that for many of these student teachers, feelings of frustration seem unexpected, and therefore taken personally. In our estimation, learning to cope with frustration, regardless of its genesis, is a challenge which many student teachers neither expect, are prepared to manage, nor know how to handle.

Respect

Similar to the lessons of handling frustration, these student teachers were a little more than surprised at how little respect high school students have for the role of the teacher. It appears to us that they discover how tenuous the relationship between teacher and students is rather quickly. It is a relationship they took for granted as students, but now they find they have to earn. Tricia, a physical education student teacher, discusses her conception of respect in the following manner. On her first day with this particular class, Tricia writes,

> I thought about what might be causing such behavior problems in this class, and I came to the conclusion that I had not given them any types of rules to go by. I didn't tell them what was expected of them, and most of all I realized that I had not earned their respect as a teacher. For the latter of the statements above, I feel that this comes with only comes with time.

Joey, an agriculture teacher, has a different understanding of respect, where lack of preparation led to the following, "...I was trying hard to pull it all together. Knowing the whole time that the students realized (I wasn't prepared). I was starting to feel that I didn't have an edge over them, and I was not getting the respect I should have." Mick, also an agriculture teacher, describes his definition of respect as a pupil "showing up" a student teacher.

> Then as time went on, the students began asking me questions over my head. Questions that I found no material on. I handled it wrongly. I told them I did not know, and dropped it. I was hoping the they would not bring it up again. They did, they would not except (sic) 'I don't know'. I was embarrassed and getting worked up." The students laughed at me and that really hurt.

As with frustration, these student teachers are not prepared for their personal reactions to their pupils' lack of respect for the teacher, and concomitantly for them as a person. They did not expect to have to prove themselves on a daily basis. In high schools, if the pupils are not with you they tend not to wait; their lives continue. It seems our student teachers had difficulty maintaining a sense of self-worth, when their honest efforts were not recognized by their pupils.

Boredom

Quite possibly the most feared and dreaded criticism a student teacher can hear is that he/she is boring. In their entries, some of the student teachers describe how their perceptions of their own boredom affected their learning to teach. Consider the case of Lee, a student teacher in English, describing "the first lesson I taught" to a class of "smart upper level sophomores." The content was sentence combining. She admits to being "scared" because on this particular topic, she was "rusty." She goes on to describe a high need for being liked and trying to "please people." As she writes,

> Well, at the time of this lesson I was still discovering (her need to be liked). I prepared my lesson, practiced my lesson. It was the dullest, driest lesson that was ever recited. I droned on and on, not making sense even to myself. I would say something then forget the rest. The students were bored out of their minds. Some slept, most just gave me that blank look of daydreaming. I didn't feel confident enough to call anyone down for sleeping; I floundered, I didn't know what to do. I felt like crying. The lesson was over in about a half hour. I thought it would last two days. Worst of all, the students were saying I was boring. That was the worst insult of all. They didn't like me.

In that last sentence, Lee sums up her worst lesson, "they didn't like me." That feeling in and of itself was perhaps the most devastating feeling someone with such high needs to be liked could ever imagine. Yet, on her very first day of actual teaching, she cannot figure out how to avoid it.

Chris offers another perspective on boredom. It is interesting to consider whether he attributes it to himself or to the students. "My most unsuccessful lesson was when I was teaching and no one was giving a sign of response. It was very frustrating to be thinking this stuff is really fascinating and then looking out at 27 pairs of far away eyes." Chris seems to think that the students very simply did not find his geography content particularly interesting, even though he appears to find it "fascinating."

Jane, another social studies student teacher, who is wrestling with deciding what is worth knowing, and therefore teaching, attributes her pupils' boredom and her lack of success to the content. While she knew the content well, like Lee above, Jane notes,

> I realize that all aspects of history cannot be 'fun' and interesting. However, I was even bored teaching the accomplishments of Elizabeth, Charles, and Phillip.

After describing her students confusion about organizing a chart on the accomplishments of these three absolute rulers, Jane reflects,

> History can be so much more interesting if the focus is on people--not dates and events. Sixteen and seventeen year olds are not interested in the seven points about Elizabeth's reign or the five internal improvements Charles made in Spain.

Jane's reflections raise questions of a more powerful order. What is worth teaching? and Who should decide? These are timeless questions that revolve in the sphere of the teacher's world, regardless of years of experience. Jane knows that high school students see no need for knowing historical facts, and at this point in her development as a teacher, she opts for a more sociological analysis of people in history.

The previous examples have involved subject matter that might not have a natural appeal to high school students. A student teacher in home economics, Rita, provides a case to demonstrate that even content that has implications for living can fail to mitigate pupil boredom. The lesson content was diet and cancer. In this case, Rita shows how inappropriately matching the content with the pupils prior knowledge can help a lesson deteriorate quickly. She begins by describing her apprehension.

> I was very unsure of the material, since I was not knowledgeable about the up-to-date information. I felt very apprehensive since I had to teach myself before I could teach the students. I first introduced a film that my (cooperating) teacher had scheduled for the students to view. It was entitled, "Diet and Cancer" and was a lecture series that turned out to be way above the students' heads. The students slowly gave up and dropped their heads on the desk and no one was watching the film. I stopped the film and began to lecture about it the instead of completing the film. As I was presenting the material, I felt as if I wasn't

> much better than the film. I was just lecturing like a robot, computing the information and the students grasping bits and pieces.

In this particular case, a bit of apprehension mixed with inappropriate materials and an in-flight decision that was no better than the film, led her to wishing "it to be all over so I could start fresh the next day." It seems that even content that has utility for the pupils cannot forestall an unsuccessful lesson if other features are not effective.

In this section, we presented four examples to demonstrate that within the concept of lesson implementation, unsuccessful lessons can be the result of a variety of causes. Not least among them is pupil boredom. From our analyses, boredom takes on many different forms, including boring content, ineffective instructional strategy, lack of pupil interest, and pupil perception that knowing or learning something really does not affect much. Student teachers, after spending four to five years studying a subject matter in depth, as in a college major, need to learn that some of their high school pupils will not understand that some things are worth knowing. Beginning teachers with fragile egos do not want to be lumped into the ubiquitous category "boring teacher" and have difficulty understanding their pupils' reactions. For some, like Lee, it is a personal matter, and for others, such as Jane, it is only an instructional problem to be overcome by good content analysis and planning.

Lack of Knowledge/Communication of Content

Perhaps the largest area of attribution for unsuccessful lessons is the area of lack of knowledge, and communication of that knowledge of content. This particular attribution surprised us because it is readily assumed that the college major a secondary education teacher attains is necessary, and arguably sufficient, to assume responsibility for a high school class. As the following cases demonstrate, these high school student teachers express lack of understanding of their field, lack of knowledge of some aspects of their fields, lack of interest in

certain aspects of their fields which appears to lead to cursory planning, or an inability to explain their fields to high school pupils without causing confusion. As we hope will be evident in this section of this paper, this is an attribution which even the student teachers did not expect would be a challenge.

Lack of knowledge/interest. As Rita described above, in the section on boredom, she did not have, what we call, "a teacher's understanding" of her content. She was apprehensive and marginally prepared at the outset, and when she stopped the film, the best she could do was lecture, which is what the film was already disastrously failing to do well. In many instances in these entries, when student teachers lacked "a teacher's understanding," they tended to opt for teacher-centered environments. That is, they tried to lecture their way through their uncertainty, and thereby control the delivery of content. It is our analysis that they resorted to this instructional strategy because it reduced the likelihood that students would ask challenging questions which the student teacher might be incapable of answering.

Jeannette writes,

> My most unsuccessful lesson was the first day I lectured on animals. This lesson was the beginning of the unit on zoology, which I do not like. The reasons the lesson was unsuccessful are: 1) I was unprepared; 2) I didn't know the material; 3) I had to cover three phylums (sic) in one class period, and 4) I had a bad attitude going into the lesson.

Jeannette goes on to describe, the pupils' bored countenances. By the time I had to teach I had to cram in some information that I wasn't too sure of and didn't care to know.

Maria, a student teacher in agriculture, attributes her unsuccessful experience to a lack of knowledge and interest in content.

> My most unsuccessful lesson was the class (employment skills) out of my own major or minor or interests. Oops! Well tis so. I'm not an expert on employment skills. I had to study and prepare for this class a lot. It was really more than one can learn after a tiring day of student teaching. I was probably

> bored with it, but it was there and I had to teach the syllabus my supervising teacher had prepared.

James, a math student teacher, offers the effects of communicating misinformation. While he knew the content for a freshman algebra class, he made a mistake that cost him the class. "One example was wrong in my mind and I couldn't think of what to do to fix it. I had to dig out the book/notes and the class was instantly chaos. Once I explained it incorrectly, no one was interested in my correction of my mistake."

Skip, another math student teacher, experienced the same sinking feeling that can be caused by an error in content.

> I froze one day while working a proof for my geometry class. I had not studied the proof before attempting it and halfway thru the proof I lost it...I started sweating and talking fast and felt like Custer did. I think the kids enjoyed seeing me suffer with the proof since they kept saying 'you don't know how to do it either, so why should we.'

Fortunately for his emotional state, "I don't think they really cared about the proof except for the fact that it showed me up." Skip went on to note that he brought back the correct proof the next day, and the only thing "the kids asked is 'do we have to write this down?'"

Problems in communication. Another area in which the student teachers seem to have difficulty is that of communicating their knowledge of the subject matter to high school pupils. The problems range from using language well, to identifying examples and analogies which illustrate key points in the content, to speaking in a language from which the pupils will profit, to assessing accurately pupil readiness for the lesson.

Clark is a non-traditional student in his mid-forties with vast direct experience in farming and agriculture. While his entry is not particularly deep, he makes a few key points. The lesson was on marketing, which he acknowledges is outside his area.

> Another problem may have been because of my limited knowledge of the subject. I did not allow the students to freely ask questions (I did this by doing all the

> talking!). I did not get the students interest and was not fully prepared for the subject.

He also indicates difficulty in learning how to talk to high school juniors in a language that will make the content meaningful to them. "I had real problems relating the subject to the students. I had great difficulty in getting the students to see how they could relate to world marketing." It is little surprise that Clark encountered trouble explaining world marketing in a manner that would hold the interest of his very rural students; he admits to lacking an understanding of the material himself, making useful examples difficult to create.

The theme of communication takes another form beyond lack of understanding of content. Brian, an honor student in physics and mathematics, "...thought I could work the (pre-calculus) problems and explain the procedure..." when he apparently lacked "a teacher's understanding" of the lesson content. Brian relied on his facility with pre-calculus. He found out that while he could do the problems, he could not provide clear explanations as to how he did them. "What was worse, I couldn't keep my wits about me enough to figure it out. I just showed them how to work the problem, and waited until the next day to provide the explanation." He attributes this unsuccessful lesson to lack of planning, which it clearly was, but it also speaks to the confidence a very capable college student has about his/her mastery of content, but who realized "on his feet" that teaching it to others is quite a challenge.

Richard, another non-traditional agriculture student teacher, experienced the same revelation.

> ...I am experienced in several fields. It is very hard to regress back to the level of high school students who don't know anything about any subject you discuss with them. I felt very disgusted and almost indignant toward the kids because they could not grasp the things I was trying to explain.

For researchers, it is unfortunate that Richard did not go into greater detail because we would have liked to have known more about his perception of his role as the teacher. He becomes

frustrated with his students, but unlike Brian in the previous case, does not seem to "own" the solution to the problem.

Cindy, another English major, experienced the same problem in selecting to read Poe's "Fall of the House of Usher", but her reaction suggests she found a solution. She writes, "...I like Poe, and I naively assumed the kids would..." However, the complexity of the material, and her visible nervousness, undid her lecture format. After experiencing the disaster of no pupil responses to her awkward questions, and the feelings of being "stonewalled," or feeling "scared, frustrated, and foolish," she completes her entry with the following sentences. "Furthermore, if I were to redo the Poe lesson, I would leave out some of the more complex symbolism. It was too abstract for juniors in high school; it was college material."

Bonnie, a science student teacher, experienced the same effects of inappropriately analyzing the class' readiness for a lesson on genetics.

> In planning the lesson, I overestimated the ability of my students. For that moment, I must have had difficulty making the transition from a college lesson to teaching a school lesson. While teaching the lesson, I was so nervous I couldn't see the subject matter flying over their heads. I taught straight from my lesson plan feeling if I waivered one second I would be lost. Since the lesson plan was too difficult and I was too nervous and self-absorbed to see it, the lesson was basically a failure.

One of the other student teachers in her entry, would tell us that Cindy and Bonnie were still experiencing "college on the brain." We like this concept because it addresses a problem we saw in many of the entries gathered for this study. Student teachers are startled at how difficult it is to translate and transform content for learners who lack prior knowledge of the subject, or who bring misinformation to the class. Knowledge of, interest in, and communication of subject matter so that high school pupils can profit from instruction is a complex skill that these student teachers seemed to struggle with.

Shulman (1986) and his associates discuss pedagogical content knowledge as that knowledge between content and process where examples, demonstrations, metaphors, and analogies are purposefully chosen or designed to make content understandable by others. In our estimation, communication with clarity is one dimension of pedagogical content knowledge. The entries in this study suggest that for a substantial number of student teachers, learning to put content into a pedagogical perspective is one of the more challenging hurdles they must learn to leap. For some, content was problematic; for many instructional strategy was moreso. Proponents of alternate routes to certification generally assume that possession of subject matter is all a teacher needs. The cases used in this section suggest that knowledge of content is necessary but ultimately insufficient when student teachers must decide what to teach, to whom, and how to design instructional processes that reduce the likelihood of pupil confusion, and quite possibly student inattention.

Poor preparation

Another theme in the students' entries centered around planning. Long considered a benchmark of good teaching some of the student teachers in this study tried their hands at mimicking the many teachers they have seen over their years as students. Planning is not usually observed by students throughout their years in school, and this particular teacher education program did not require preservice teachers to observe or interact with teachers while they planned instruction. Perhaps Roberta's early successes in teaching math to low-track 11th graders led to a false sense of security which lulled her into believing she did not always have to plan.

> We had just completed the unit on signed numbers. I was very pleased with the scores, in fact, I was pleased with myself, because it was time for deficiencies, not one student was to receive one, therefore I reached my 80% goal. Anyway, as I graded the test that night I was feeling pretty good about the grades and averages; therefore I did not prepare for the next unit as I had done before...I

> introduced the subject (bar graphs), did examples off the top of my head, did not have rulers, graph paper, proper examples, or even a lesson prepared, and they let me have it and I deserved it...I completely lost control of the class, and the lesson. At the end of the day, during planning, as I was grading their graphs, I realized that I did not teach them about bar graphs as I intended and so stated to them, but I showed them histograms.

As Roberta's reflections suggest, the slightest confidence derived from one's success can bring with it a security that can quickly crumble.

Peter, a physical education student teacher teaching a unit in health echoes the same sense of security and how another event, in this case being videotaped, brought his security to a crash landing. He writes,

> My most unsuccessful lesson was the first lesson on a drug education unit. It was unsuccessful because I was nervous and unprepared. I had just finished teaching an alcohol unit...and it went well. I prepared a great deal for the alcohol unit complete with lecture, videos, study guides, and my first test. I really wanted to do well. To my surprise the more I taught this alcohol unit the less nervous I became and it dawned on me I wasn't doing half bad. After the alcohol unit I thought I could do the drug education unit with my lecture notes and do a good job. I was wrong. I went into class with my notes and hadn't read ahead in my book. I hadn't prepared any seatwork; I didn't have a video to rely on. It was just me, the students, and my lecture notes. Then I remembered that (my cooperating teacher) was going to film segments of the lesson to show to our mentoring group in the library after school. I remember starting to lecture and all I could think about was him. Suddenly, the material I thought I knew fairly well, I didn't know at all. The students asked a couple of questions I couldn't answer. My face got red, and I could feel my neck starting to heat up. My lecture was boring and some of the kids said I made them take way too many notes.

Lack of participation

Student teachers, like experienced teachers, have conceptions of successful lessons. One of the features that we found in the entries of successful lessons included pupil participation and involvement in the lesson. It seems that student teachers, as we noted above, believe lessons are successful when the pupils participate in the classroom discussion. The other side of the same coin suggests that lessons are unsuccessful when the pupils do not respond to the

lesson. The entries of Sarah, Chris, Lee, and Rita earlier in this paper all include lack of participation. We only add one other to build this concept. Lori, a student teacher in English describes her experience with deadpanned reactions, even though she seems to have planned thoroughly.

> I had planned a nice discussion of the motivations of the major characters (in The Scarlet Letter) based on a triangular relationship we had discussed in class the previous week. The questions for discussion were broken up into groups of two. They were a mixture of information questions and insightful questions. As I began posing even the easy questions I was met with every teacher's nightmare--blank empty looks. So I probed, mainly hoping to get to the answer the long way. Again a dead-end. 'I don't know' was the common response, 'I don't understand, Ms. Smith'. Of course I wanted to crawl under a rock and die.

Misbehavior

Pupil misbehavior is one of the more common themes we encountered in analyzing these entries. It is our observation that while pupil misbehavior is a category unto itself, it is more often than not the final effect of problems in each of the other areas described in this paper. We detected a general pattern that begins with instruction, pupil reaction to the lesson content or process, a student teacher in-flight analysis and decision to alter the lesson, a discomfort with the loss of pupil attention, leading to frustration, anger, and disappointment. We also found that misbehavior can arise for the most simple of reasons, as well as for the most complex. We present two cases which we believe demonstrate how tenuous the control a student teacher has in the classroom, and two which we believe capture the downward spiral of the unsuccessful lesson.

Donald enters the following.

> The lesson got off to a bad start when I could not get their attention. The problem was compounded by several late students coming to class who caused disruptions. Once all were seated and quiet, I started my lecture. The lecture fell flat...As soon as I started to write on the board the noise level began to rise...The rest of the class period was constant reminders to quiet down.

Raymond experienced "that one pupil" who disrupts everything else. While trying to develop two related concepts, he writes,

> Everytime I say something, one particular pupil would slap his knee and his mate would fall out of his chair. This was of course driving attention from the lesson (at about 95 mph).

Raymond continues to describe how the remainder of the class members became the reinforcers for this repeated act. The examples of pupil misbehavior from the students' entries could go on, but they are all too familiar. Rather, we would like to use two examples that demonstrate how student teachers experience a downward spiral once the conception of the lesson begins to dissolve. There is some self-flagellation and some blaming of the students.

Joan captures the multi-faceted dimensions of unsuccessful lessons.

> My most unsuccessful lesson was the first time I presented balancing chemical equations to my Introduction to Physics and Chemistry class. They understood nothing. I had already taught writing chemical formulas and thought they understood what the formulas meant once they were written. I was wrong. The students had merely memorized enough materials to pass the quiz on writing chemical formulas. Understanding chemical formulas is basic to balancing chemical equations. The reason my lesson was unsuccessful was due to the fact that I had failed to give them a proper foundation on which to build the new concept. I felt very frustrated, guilty, and concerned. I even felt a bit angry. I knew that if the kids had studied properly they would have gotten the basics they needed. I also know that I was going to have to get off schedule, again, and reteach the writing of chemical formulas. I was concerned also the the students did not know how to study material of this nature. I also feared that since they did not understand the material the first time they would not get it the second time. I did finish the lesson on balancing equations and gave homework. The results the next day confirmed my expectations...Another reason this lesson was unsuccessful was that I did not feel comfortable with the material as I have always had trouble with and disliked chemical reactions. I try to cover this but I am sure that it shows through from time to time.

Suzanne, a business education student teacher, enters:

> The most unsuccessful lesson has to be when I was trying to explain distribution channels to my management class. My method of presenting the chapter was by overhead. The students received an outline of the lecture and they fill in this outline as I lecture. The students complained about writing and said how they hated this class. Well, their constant complaining and sighing shook me up.

> Here I thought this would be an interesting chapter and the students hated it. This lesson was unsuccessful because the students were not motivated or the least bit interested in my presentation. All I heard was complaining the whole period. The students did not learn one type of distribution channel or what the difference is between a retailer and a wholesaler. During this lesson I felt trapped. Should I go on or should I stop and approach this a different way are questions I kept asking myself. During the whole lecture I called students down for talking or being disruptive. One student turned around and put her back to me and refused to turn back around. At that point, I felt helpless and it took all I had to keep talking.

Discussion

As with any study of this nature, the categories are easily challenged as to their validity. Any entry, as we have tried to acknowledge, can be placed into multiple categories, which we feel probably reflects reality. We think the entries of Joan and Suzanne are more realistic in that they touch upon a number of attributions. It is not our intent to treat these attributions as unidimensional explanations. Rather, we have tried to use them to capture the inner feelings of the student teachers. Our categories are not clinical; we do not intend them to be. In addition, our categories are not different from those found in previous research, Borko et al. (1987) and Ellewein et al. (1990). The student-teachers in the present study made references to self about planning, lesson implementation, and management. They reflect a language that holds the essence of the student teachers' emotions. Learning to teach is complex, and any system of categories will fail to do justice to the rather personal concerns of beginning teachers. However, we believe that we have uncovered three broad themes that touch upon learning to teach.

Personal pedagogy. One of the themes that continues to strike us is that learning to teach is a very personal endeavor. Students aspiring to be teachers must learn to cope with a wide array of demands and constraints that they rarely experienced in their preservice course- and fieldwork. While they are learning about their pupils, how to teach them, and in what type

of educational environments, they are also learning about themselves. In a sense, each student teacher is now developing his or her "teachingself" or that new persona of someone who has the social responsibility for helping others learn. Fortunately, and at the same time, unfortunately, developing "teachingself" appears to be a personally constructed process. It incorporates a shift from a concern for self to an outer-directedness that students rarely are asked to assume. We think that the broad range of attributes of successful and unsuccessful lessons epitomizes the quest for trying out an entire new world; a world so different from the self-controlled world of studenthood.

As such, learning to teach and student teaching requires either formally or informally writing and wrestling with one's autobiography, asking "Who am I as a teacher?" While we have no data in the present study to support our position, we suspect that a longitudinal study of successful and unsuccessful lessons as conducted by Borko et al. (1987) would suggest that student teachers attribute their successes, or lack thereof, to different themes at different times. For instance, one lesson may be successful due to good planning, and another time, due to pupil participation. The same can be said of unsuccessful lessons. One lesson may fail due to poor planning, and another due to lack of pupil participation, or pupil misbehavior, and still another to poor assessment of pupil readiness. Sometimes, a lesson will fail because of the interaction or confluence of many of these themes, as were the cases with Joan and Suzanne. In each of their entries, one can sense self-doubt as these two student teachers struggle to think like a teacher. Their entries are particularly poignant because they demonstrate that learning to teach is the development of a personal pedagogy, or a "teachingself." Perhaps, we can view the growth expected of student teachers as the writing of the next chapter in the development of "teachingself." What became evident to us is that we were watching these "uninitiated novices"

try to wrestle with personal concerns using cognitive processes that as yet have few structures for interpreting these new and unique and usually unanticipated classroom events.

Self/Other. Across the themes, another broader concept which emerges is that of identity. Beginning teachers are not only learning to teach, they are also identifying the "teachingself" which, as Ellwein et al. (1990) found appears to be quite a challenge for student teachers. They seem to us to be defining "teachingself" when some critics question whether "self" has yet been defined. Haberman (1991) discusses the phenomenon of having 22 year-olds in front of 18 year-olds in an authority, role model relationship. As Haberman forcefully asserts,

> It takes somebodys to make somebodys; nobodys don't make somebodys. Those still engaged in the struggle to develop their own identities are the last people we should seek to place as teachers with children and youth who need confident, competent role models (1991, p. 285).

The themes of frustration, respect, and boredom suggest to us that both the identity with self, and with "teachingself" are emergent. Of the entries we read, many student teachers seemed as concerned with asking questions about "self" as they were with asking questions about their role as teacher. Many of these student teachers seem to lack the maturity required to assume responsibility for the welfare of others.

Complexity. One of the student teachers in this study described learning to teach as "walking into a pitch black room wearing a blindfold." We suspect that he was acknowledging how difficult it is to find one's direction as a beginning teacher in the classroom even when one of your limitations is removed. Doyle (1986) identifies six factors which characterize the environment of the classroom. He discusses concepts such as multidimensionality, simultaneity, immediacy, unpredictability, publicness, and history. Each of these are attributes of a complex environment. The student teachers in this study faced that complexity on a daily basis. As we

can glean from the conceptions of successful lessons, they know that a successful lesson is one in which many diverse dimensions converge to a focal point. The conceptions of unsuccessful lessons suggest that lessons can go awry for simple reasons or for multiple reasons, and that for both successful and unsuccessful lessons, unpredictability seems constant.

Learning to read and adapt to the complex environment in ways that increase the likelihood of success, is an acquired skill that student teaching is designed to promote. In those instances where the student teachers planned alternate strategies, i.e., discussion, or group work, some encountered resistance on the part of the pupils because such strategies were not a part of the classroom's history. These types of entries cause us to wonder why we persist in placing student teachers in classrooms where the opportunity to continue as a student of teaching is virtually impossible. As others have noted (Berliner, 1985; Hawley, Evertson, & Zlotnick, 1986), we should question the value of field experiences which operate on a philosophy that more opportunities to practice "in the real world" is better. While the development of "teachingself" is a goal of virtually any teacher education program, learning to read a complex environment is a skill acquired through systematic program-based experiences.

Implications

The concepts of personal pedagogy, self/other, and complexity offer opportunities for teacher educators to examine their programs for ways in which they can nurture the growth and development of beginning teachers. These concepts raise a set of questions which may not lead to new programs, but which can help address the values which underpin a teacher education program, as well as the content and the processes which aspiring teachers experience.

If students treat learning to teach as a personally constructed endeavor, then what are the implications for teacher education program development? That is, how can the faculty in the program design professional education experiences which take advantage of the personal

"pedagogies" present in any teacher education course and use that "autobiography" as rich soil for the program, rather than as something to be disregarded and discarded as the program unfolds before the students? We can envision a variety of opportunities. For example, perhaps a program could be designed such that a definition of self emerges through structured clinical, laboratory, and field experiences. Or a program could provide opportunities for early field experiences where preservice teachers' personal concerns about being a successful teacher, such as being boring, or needing respect, shift away from self and more toward the task of learning to teach (Hall & Hord, 1987).

This line of thinking follows as we consider the implications of a pre-occupation with self among beginning teachers. It seems to us that any experience which encourages preservice teachers to think and act in less narcissistic ways would assist their growth and development as teachers. As we saw in the entries, these student teachers appear to be less introspective, and more self-concerned, in an environment which demands that the teacher be other-directed. It is what pupils have come to expect from teachers. Making the shift from student to teacher appears to be an enormous challenge.

The complexity of the classroom environment remains one of the more elusive concepts for student teachers. The implications for teacher education are vast, yet center around the question, How can teacher education programs be designed around two divergent outcomes? In our estimation, teacher education programs are usually designed to prepare teachers for entry-level positions. We propose that teacher education programs should be designed such that student teaching is also an outcome. Conceived this way, all courses and experiences are designed to lead up to student teaching. Our position rests on the belief that the student teaching experience is, or should be, controlled by the teacher education program faculty. If it is, then there should be a set of expectations which student teachers should be prepared to

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achieve. If the expectations are clear, then each course, and each clinical, laboratory, and field experience through which the preservice teachers pass should be geared toward helping them achieve the student teaching expectations. In this way, the program has a coherence to it that prepares students to begin to think as teachers think.

There are many propositions in the foregoing. But if we can push this idea a bit further, we could envision a teacher program faculty that is concerned with helping preservice teachers learn to read the complex environment, reflect on it, and construct strategies for making it a productive environment. The exercises the preservice teachers would experience throughout their preparation program would be aligned with learning to understand the complexity, handling complexity, and making judgments about their effects on the classroom. We are intrigued by the expectation that student teaching is really where one learns to teach. We think that the themes and concerns can be addressed by more conscientious program development in teacher education.

Research on how students become teachers is a growing body of literature. As yet, though, our conceptions of how this process occurs lacks clarity. We have attempted to make use of the successes, and the problems and dilemmas faced by high school student teachers by using their own language. However, how closely these entries approximate reality is always of question. These student teachers all attended the same teacher education program. There are probably systematic biases due to program effects, socioeconomic locale, or even the education history of the pupils taught by these student teachers. More research is needed to examine more fully whether the themes identified in this study are in any way similar to research conducted in other settings.

In addition, the method we used has the limitation of asking for the data toward the end of the student teaching experience. There is more than enough room to speculate on stages of

concern across the student teaching experience. For example, by asking students to make similar journal entries on a daily, weekly, or bi-weekly basis, we might find a general pattern in the attributions over time. Perhaps, the emphasis on self would shift to "teachingself" or to other-directed the closer one gets to the end of student teaching.

We think research on how students become teachers is important because it causes reflection on alternate strategies for preparing teachers. For the most part, many of the more visible reform proposals alter the structure, but not necessarily the content of the programs. Building a program around the natural concerns preservice teachers bring to their teacher education might provide useful insights into new arrangements for the preparation of teachers.

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